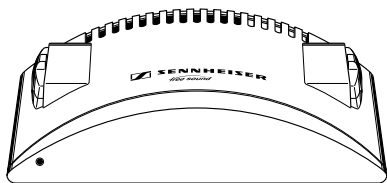
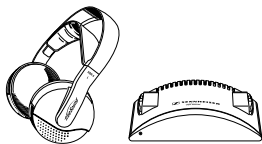


BEDIENUNGSANLEITUNG  
INSTRUCTIONS FOR USE  
NOTICE D'EMPLOI  
ISTRUZIONI PER L'USO  
INSTRUCCIONES PARA EL USO  
GEBRUIKSAANWIJZING

**RS 4**  
**RS 4-9**



*freeSound*



Thank you for choosing Sennheiser! You have made an excellent choice. This product will give you reliable and cost-effective ease of operation over many years. All of Sennheiser's professional expertise and more than fifty years of experience have gone into the creation of this state-of-the-art product.

Please take a few moments to read these instructions carefully. We want you to enjoy your new wireless headphones quickly and to the full.

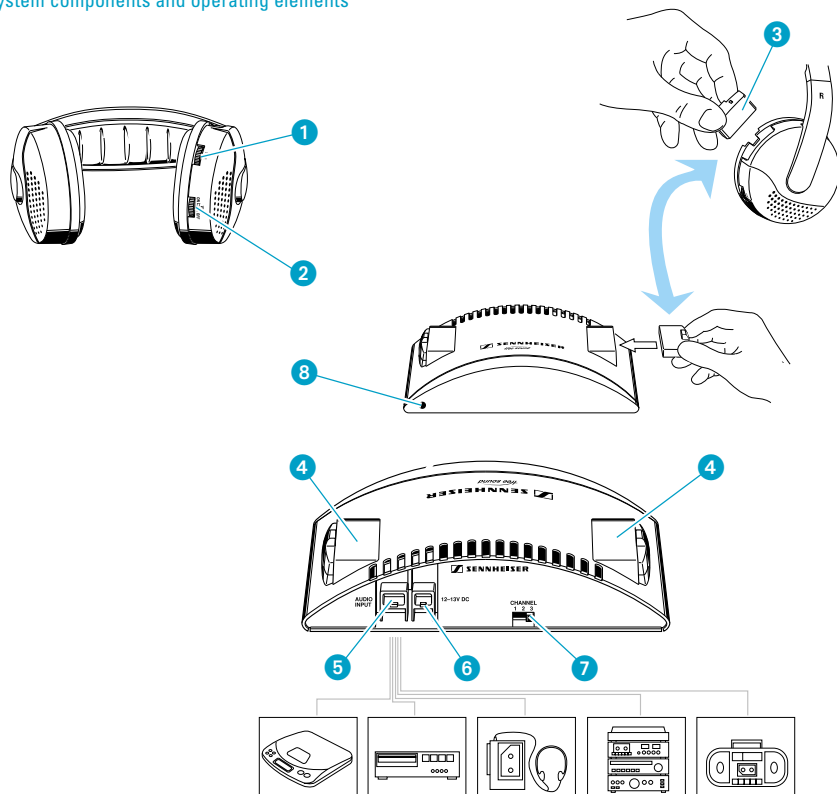
### Versions

RS 4	RF transmission on 433.40 ... 434.50 MHz (European version)
RS 4-9	RF transmission on 924.80 ... 926.50 MHz (North-American version)

### Features

- Lightweight headphone, comfortable to wear
- Excellent sound quality
- Easy to operate
- The headphone operates on environmentally friendly rechargeable accuplugs (nickel-metal hydride)
- Volume can be set directly on the headphone
- Up to two accuplugs can be recharged in special compartments in the transmitter
- Plug-in mains unit available for different operating voltages
- Transmitter in a designer housing
- Three switchable transmission channels allow simultaneous operation of several systems
- Insensitive to interference due to special RF input filter

## System components and operating elements

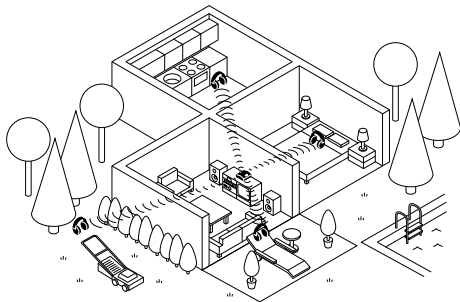


## Wireless RF transmission technology

With this headphone system you can move around freely in the home or outside in the garden without the constrictions of a headphone cable! The RS 4 will transmit the stereo sound signal from your hi-fi system or any other sound source to the headphone receiver.

The Sennheiser system operates on a carrier frequency of approx. 434 MHz (RS 4) or approx. 926 MHz (RS 4-9), respectively. This frequency band has been licensed by the respective telecommunications authorities for “non-commercial use”, and apart from wireless sound transmission, it is also used for remote controls etc. (Please note: because of this, occasional interference may be experienced from e.g. car alarm radio keys.)

The maximum distance between transmitter and receiver should not exceed 100 m. Walls and ceilings are (almost) no obstacle, since radio waves travel through them. Transmission will remain clear and intelligible, and it is not necessary that transmitter and headphone receiver are in a direct line of sight. The only obstacle for radio waves are metal parts as e.g. in concrete constructions or wall coverings. They reflect radio waves.



If several wireless RS 4 headphone systems are operated simultaneously and are very close to one another (e.g. on the next floor, at a neighbour's, or on the other side of the street) you have to agree on using different channels. For this purpose, the RS 4 system features three transmission channels, so everybody can transmit the music they want to listen to.

## Where to place the transmitter

Choose a suitable place near your hi-fi system.

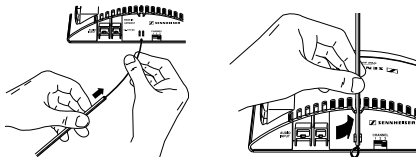
## Putting the transmitter into operation

- ▶ Use the supplied cable to connect socket ⑤ on the transmitter to the headphone output socket of your hi-fi system. The cable is fitted with a 3.5 mm jack plug suitable for most headphone output sockets. For connection to 1/4" (6.3 mm) headphone outputs, use the supplied adaptor.
- ▶ Connect the plug-in mains unit to socket ⑥ on the transmitter and plug the mains unit into a wall socket.

## Antenna

The wire antenna is an integral part of the transmitter. For best transmission the antenna should be vertical. You can therefore

- ▶ leave the wire antenna dangling in a vertical position down behind the transmitter - or
- ▶ (the better option) slide the supplied plastic tubing over the antenna and snap it into the clamps at the back of the transmitter:



Make sure that there are no metal objects such as shelf bars or lamp stands in parallel with the antenna. Do not place the transmitter on a TV set as it might interfere with the transmitter. Test where exactly in the room the transmitter works best.

## Automatic on/off switching

The transmitter features a convenient automatic on/off function:

- ▶ When an audio signal reaches the transmitter, it is switched on.
- ▶ If there is no audio signal for about 3 minutes, the transmitter automatically switches off. The transmitter is now in stand-by mode, its power consumption is very low so that it can remain connected to the mains.

## Important

The transmitter's charging function (charging compartments ④) is independent of the automatic on/off function. Accuplugs can always be recharged when the transmitter is connected to the mains.

### Putting the receiver into operation

Insert the BA 151 rechargeable accuplug ③ into the battery compartment on the headphone receiver.

### Switching the headphone receiver on

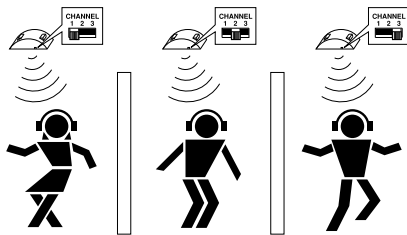
Switch on the headphone receiver and adjust the volume with control ②.

### Adjusting the receiver channel

Transmitter and headphone receiver have to work on the same frequency:

- ▶ Put the transmitter and the headphone receiver into operation as described above. Switch on the signal source! If possible, switch off its loudspeakers.
- ▶ Select a transmission channel (1, 2 or 3) on the transmitter with switch ⑦.
- ▶ Adjust the volume control ② on the headphone until you can hear a low hissing.
- ▶ Slowly turn control ① ("TUNE") on the headphone until you can hear the audio signal loud and clear. The receiver's AFC (Automatic Frequency Control) circuitry stabilises your adjustment.

**Transmitter and headphone receiver are now operating on the same frequency.**



### Simultaneous operation of several systems

Your neighbour also likes listening to music with an RS 4? No problem! With switch ⑦, you simply select a different channel on each transmitter. Then set the headphone receivers to the respective frequencies (with control ①, as described above). Observe a minimum distance of 2 m between two transmitters.

### Adjustments on your hi-fi system

- ▶ Please refer to the instruction manual of your hi-fi system to find out whether the volume control also adjusts the headphone output or whether the output has to be regulated separately. You will also find instructions on how to switch off the loudspeakers.

### Optimum modulation level of the transmitter

- ▶ First, set the volume of your hi-fi system to a medium value.
- ▶ The T 4 transmitter is fitted with an automatic modulation control which prevents overmodulation of the transmitter. The green LED ⑧ on the front panel indicates optimum modulation. Now adjust the volume on the hi-fi system such that the LED ⑧ blinks in time with the music, this indicates the correct transmission level.

### Important!

- ▶ Only use the transmitter with the suitable Sennheiser mains unit included in the supply schedule. Always disconnect the mains plug when you want to change connections or move the device to a different place.
- ▶ Never open electronic devices! This must only be done by authorised personnel and is all the more valid for repairs on current-carrying units.
- ▶ Keep the system away from central heating radiators and electric heaters. Never expose it to direct sunlight.
- ▶ Use the system in dry rooms only. Transmitter and plug-in mains unit should always remain in the home. You can use the headphone receiver outside if the weather is dry.
- ▶ Use a damp cloth for cleaning the transmitter and the headphone receiver. Do not use any cleansing agents or solvents.

### Volume up? - No!

When people use headphones, they tend to choose a higher volume than with loudspeakers. Listening at high volume levels for a long time can lead to permanent hearing defects. Please protect your hearing, Sennheiser headphones also sound exceptionally good at low volumes ...

### What to do if ...

... the volume is up but you cannot hear anything:

- ▶ There is no audio signal available. Check the transmitter connection. Is the volume at the headphone socket of your hi-fi system or TV sufficient?
- ▶ Are you still within the transmitter's range?
- ▶ Is the receiver on the same frequency as the transmitter?

... the sound is distorted:

- ▶ The headphone accuplug has gone flat, please recharge it immediately.

... the sound is slightly noisy:

- ▶ You are about to leave the transmitter's maximum range. Soon transmission will be interrupted completely.
- ▶ The transmitter's modulation level is too low. Increase the volume on your hi-fi system (see also page 18).

... you can hear twittering and chirping, and the sound is "squeezed":

- ▶ Two transmitters are interfering! Choose a different transmission channel.

### Accessories

The following items are available to complement your system:

- **BA 151**

Rechargeable accuplug as a spare, for use when the supplied accuplug is being recharged

- **L 150**

Charger for recharging additional BA 151 accuplugs (recommended when more than two headphone receivers are used with one transmitter)

- **HDR 4 or HDR 4-9**

Additional headphone receivers



## Charging cycle of rechargeable batteries

The charging time of your accuplug 5 depends on how long you have used the headphone receiver. General rule:

$$\text{Operating time} \times 3 = \text{charging time}$$

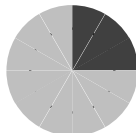
Example:



listening: 1 hr  
recharging: 3 hrs



listening: 2 hrs  
recharging: 6 hrs



listening: 3 hrs  
recharging: 9 hrs

## Recharging the ba 151 accuplug

Do not use rechargeable batteries until they are completely flat. If you do, they will be exhausted and cannot be recharged. This happens e.g. when flat accuplugs remain uncharged for some time. Please observe the two following rules:

- ▶ If you notice that the accuplug is going flat, turn off the headphone and recharge the battery immediately. If you have a spare accuplug you can use it in the meantime.
- ▶ Immediately recharge the accuplug after every use, no matter whether it is fully or only partly discharged.
- ▶ Before using the accuplug for the first time, you should charge it for 24 hours in the transmitter's charging compartment 4.

**Please note: the accuplug is also recharged when the transmitter is switched off but remains connected to the mains.**

## Environment and health

Devices which operate on rechargeable batteries are environmentally friendly. They can be recharged many times whereas standard batteries are hazardous waste after use. In case an accuplug is defective or has been damaged due to exhaustive discharge, it can be recycled. Just return it to your specialist dealer. Here you can also get new Sennheiser accuplugs.

According to today's scientific knowledge, the radio waves emitted by this device are by no means harmful.

## Technical data

Modulation  
Range  
Audio frequency response  
THD

Power supply  
Power consumption of transmitter  
RF output power  
Signal-to-noise ratio  
Frequencies T 4  
Frequencies T 4-9  
Audio input voltage / Audio connector  
Charging compartments  
Weight / Dimensions

Transducer principle  
Signal-to-noise ratio  
Max. sound pressure level  
Tuning range HDR 4  
Tuning range HDR 4-9  
Power supply  
Current consumption / Operating time  
Weight / Dimensions

## Supply schedule

## RS 4 system

FM stereo  
up to 100 m  
20 - 19,500 Hz  
< 1 %

## T 4 transmitter

12 V DC via plug-in mains unit NT 92  
approx. 1 VA  
typ. 1.2 mW  
typ. 70 dB  
433.40 MHz, 434.13 MHz, 434.50 MHz (channels switchable)  
924.80 MHz, 925.80 MHz, 926.50 MHz (channels switchable)  
10 mV - 3 V / 3.5 mm stereo jack plug + 1/4" (6.3 mm) adaptor  
2, for BA 151  
approx. 90 g (without plug-in mains unit) / 134 x 87 x 33 mm

## HDR 4 headphone receiver

open  
> 65 dB  
103 dB  
433 - 435 MHz, stepless  
923.1 - 927.0 MHz, stepless  
via BA 151 rechargeable accuplug, 2.4 V  
approx. 18 mA / approx. 3.5 hrs per accuplug  
approx. 160 g incl. accuplug / 150 x 80 x 200 mm

- 1 T 4 or T 4-9 transmitter
- 1 HDR 4 or HDR 4-9 headphone receiver
- 1 BA 151 rechargeable accuplug
- 1 plug-in mains unit, 12 V DC, for 230, 120 or 240 V mains voltage
- 1 connection cable with 3.5 mm / 6.3 mm (1/4") jack plug adaptor
- 1 Plastic tubing
- 1 RCA adaptor stereo (US-Version only)
- 1 instructions for use

## RSS 210 manuel statement

Operation is subject to the following two conditions:

- ❶ This device may not cause interferences and
- ❷ This device must accept any interference, including that may cause undesired operation of the device.

Privacy of communications may not be ensured when using this telephone.

**BUNDESAMT FÜR POST UND TELEKOMMUNIKATION**

Federal Office for Posts And Telecommunications

**EG-BAUMUSTERBESCHEINIGUNG**  
EC TYPE-EXAMINATION CERTIFICATE

**Registrier-Nr.:** B131714J **Anlage(n):** 1  
**Registration no.:** **Annex(es):**

**Benannte Stelle:** Bundesamt für Post und Telekommunikation  
**Notified body:**

**Bescheinigungsinhaber:** Sennheiser electronic  
**Certificate holder:** GmbH & Co. KG  
Am Labor 1  
D-30900 Wedemark

**Produktbezeichnung:** Drahtloser Kopfhörer RS 4  
**Designation of product:**

**Produktbeschreibung:** Funkanlage geringer Leistung  
**Product description:**

Diese Bescheinigung ist erstellt in Übereinstimmung mit der Richtlinie des Rates 89/336/EWG (Amtsblatt der Europäischen Gemeinschaften Nr. L 139 v. 23. Mai 1989) und gilt nur in Verbindung mit der/den beigefügten Anlage/n.  
This certificate is issued according to the directive of the council 89/336/EEC (Official Journal of the European Communities L 139 from 23. May 1989) and can only be used in conjunction with the above mentioned annex(es)

**Ort, Datum:** Saarbrücken, 04.06.1997  
**Place, Date:**

**Im Auftrag:**  
On behalf of  
the Directors:



Hans-Werner Bles

- ▶ Diese Anleitung ist genau so groß wie die Hülle einer CD. Stellen Sie sie mit in Ihr CD-Aufbewahrungssystem. So ist sie immer schnell zur Hand, wenn Sie etwas nachlesen möchten.
- ▶ These operating instructions are the size of a CD jewel box. If you keep it with your CDs, it will always be at hand when you need to look something up.
- ▶ Cette notice d'emploi a été faite dans le format d'un étui CD, alors vous pouvez la ranger avec vos CDs. Ainsi, vous l'avez toujours à votre portée si vous voulez vous y référer.
- ▶ Queste istruzioni hanno dimensioni esattamente uguali a quelle di una custodia di un CD. Collocatele con il Vostro sistema di custodia dei CD. Essi saranno così sempre a portata di mano qualora si voglia consultare qualcosa.
- ▶ Estas instrucciones son de tamaño tan grande como el del forro de un CD. Guárdelas en el mismo sitio donde conserva los CD, para tenerlas siempre a mano cuando desee consultarlas.
- ▶ Deze handleiding is even groot als de hoes van een CD. Bewaar deze in het opbergsysteem voor uw CD's. Dan heeft u hem altijd bij de hand, voor het geval u iets na wilt lezen.

Änderungen vorbehalten  
Subject to alterations  
Sous réserve de modification  
Con riserva di modifiche  
Reservado el derecho a introducir modificaciones  
Wijzigingen voorbehouden



Sennheiser Ireland GmbH  
D-30900 Wedemark

Printed in Ireland

Publ. 03/99

Telefon 05130/600-0  
Telefax 05130/600-300

78348 / A01